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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,882	03/25/2004	Matthew E. Gande	LA/1-22869/P1/CGC 2147	7795
324 7590 12/20/2006 CIBA SPECIALTY CHEMICALS CORPORATION PATENT DEPARTMENT 540 WHITE PLAINS RD P O BOX 2005 TARRYTOWN, NY 10591-9005			EXAMINER KRISHNAN, MALINI	
			ART UNIT	PAPER NUMBER
			1714	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/20/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/809,882	GANDE ET AL.	
	Examiner	Art Unit	
	Malini Krishnan	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/25/04, 9/10/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 21, the claims recite the phrases "an effective amount" and "an effective synergistic stabilizing amount", neither of which is defined. The use of the phrases renders the claims indefinite because applicant has not disclosed how much of the compound is an "effective" or "effective synergistic stabilizing" amount.

Claims 2-20 are indefinite because they depend on claim 1 and therefore do not avoid confusion.

3. Claims 1 and 21 recite the limitations "the cetane improvers", "the stable nitroxide compounds", "the aromatic..." and "the hindered..." in lines 4, 6, 9, and 10 respectively. Claim 2 recites the limitation "the peroxides..." in line 2. Claim 3 recites the limitation "the organic nitrates" in line 2. Claim 4 recites the limitation "the hydrocarbyl nitrates" in line 2. There is insufficient antecedent basis for these limitations in claims 1-4 and 21.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-15, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Fava ('634), hereinafter referred to as Fava.

Fava discloses a diesel fuel composition, which comprises a diesel fuel with a cetane number less than or equal to 50, and at least one cetane improver and stable nitroxide compound. Cetane improvers can be organic nitrates such as 2-ethylhexyl nitrate (Col. 5, lines 45-48). Stable nitroxide compounds can comprise a nitroxyl moiety flanked by two tertiary carbon atoms, where the flanking carbon atoms may be linked by bridging groups. Furthermore, a specific example of the stable nitroxide compound is 4-hydroxy-2,2,6,6-tetramethylpiperindinyloxy (Col. 2, lines 53-66; Col. 3, lines 1-40). The nitroxide can be found present in the range of from 1 to 1000 ppm, by weight, based on the weight of the entire formulation (Col. 3, lines 40-50). Fava also discloses that other additives, such as amine-formaldehyde products as antioxidants, can be included in the fuel composition in the range of 5 to 500 ppm by weight, examples of which are well known in the art (Col. 6, lines 26-40). Additionally, the relative proportions of the additives to one another is 1:500 to 500:1 parts by weight, which includes 1:10 to 10:1 parts by weight (Col. 6, lines 44-47).

Thus, Fava anticipates every limitation of claims 1-15 and 17-20.

6. Claims 1-6, 9-16, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wallace ('858), hereinafter referred to as Wallace.

Wallace discloses a diesel fuel composition, which comprises a diesel fuel with a cetane number less than or equal to 50, and at least one cetane improver, stable nitroxide compound, and antioxidant compound. Examples of cetane improvers are peroxy compounds and organic nitrates, such as 2-ethylhexyl nitrate (Col. 15, lines 21-31). Examples of additives that can be characterized as stable nitroxide compounds include alkenyl succinimide of an amine having at least one primary amino group capable of forming an imide group. Amines having at least one primary amino group can be of the group of ethylene polyamines, which commercially usually contain cyclic species such as N-aminoethyl piperazine and the like (Col. 5, lines 46-48; Col. 6, lines 15-25). It is the examiner's position that this description reads on the claimed nitroxide compound examples such as N-(1-oxyl-2,2,6,6-tetramethylpiperidin-4-yl)dodecylsuccinimide listed in claim 9. Antioxidant compound examples include phenolic antioxidants and aromatic amine antioxidants (Col. 14, lines 15-20). The amount of stable nitroxide and antioxidant are disclosed as falling within the general range of 0-15,000 ppm, by weight (Col. 13, lines 50-60).

Thus, Wallace anticipates every limitation of claims 1-6, 12-16, and 21.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fava in view of Wallace.

The discussions of Fava and Wallace in paragraphs 4 and 5 respectively are herein incorporated by reference.

Fava does not disclose the fuel composition containing antioxidants selected from the group consisting of aromatic amine antioxidants and hindered phenolic antioxidants.

Wallace discloses examples of antioxidant compounds, which includes phenolic antioxidants and aromatic amine antioxidants (Col. 14, lines 15-20).

Since the composition of Fava can include an antioxidant, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to utilize the phenolic antioxidants or aromatic amine antioxidants of Wallace as the antioxidant compound of Fava because they are types of compounds well known in the art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malini Krishnan whose telephone number is 571-272-

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6519. The examiner can normally be reached on Monday through Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Malini Krishnan

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